Venci
PAT/03/36133

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=> fil reg
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               0.21       0.21

FILE 'REGISTRY' ENTERED AT 14:17:54 ON 24 JUN 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   23 JUN 2004  HIGHEST RN 698346-19-9
DICTIONARY FILE UPDATES:  23 JUN 2004  HIGHEST RN 698346-19-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> e sdma/cn 5
E1            1     SDM 79/CN
E2            1     SDM 801/CN
E3            3 --> SDMA/CN
E4            1     SDMA (REDUCING AGENT)/CN
E5            1     SDMF (HUMAN FETAL HEART REDUCED)/CN

=> s e3;d ide can 1-3
L1            3 SDMA/CN


L1   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   30344-00-4  REGISTRY
CN   L-Ornithine, N5-[bis(methylamino)methylene]- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Ornithine, N5-(N,N'-dimethylamidino)-, L- (8CI)
OTHER NAMES:
CN   SDMA
CN   Symmetric dimethylarginine
FS   STEREOSEARCH
DR   100663-65-8
MF   C8 H18 N4 O2
LC   STN Files:   ANABSTR, BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAPLUS, EMBASE,
       MEDLINE, TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
DT.CA  CAplus document type:  Conference; Journal; Patent
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
RLD.P  Roles for non-specific derivatives from patents:  BIOL (Biological
       study); USES (Uses)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP
       (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or

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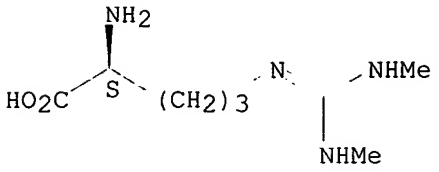
reagent); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

96 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
98 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:249431

REFERENCE 2: 140:161533

REFERENCE 3: 140:159843

REFERENCE 4: 140:126331

REFERENCE 5: 140:13220

REFERENCE 6: 139:379378

REFERENCE 7: 139:270770

REFERENCE 8: 139:62962

REFERENCE 9: 139:19930

REFERENCE 10: 138:218616

L1 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 22722-98-1 REGISTRY
CN Aluminate(1-), dihydrobis[2-(methoxy-κO)ethanolato-κO]-, sodium (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aluminate(1-), dihydrobis(2-methoxyethanolato)-, sodium (8CI)
CN Aluminate(1-), dihydrobis(2-methoxyethanolato-O,O')-, sodium
CN Ethanol, 2-methoxy-, aluminum complex
OTHER NAMES:
CN Red-Al
CN **SDMA**
CN SDMA (reducing agent)
CN SMEAH
CN Sodium aluminum bis(2-methoxyethoxy)hydride
CN Sodium bis(2-methoxyethoxy)aluminum hydride
CN Sodium bis(2-methoxyethoxy)dihydroaluminate
CN Sodium dihydridobis(2-methoxyethoxy)aluminate
CN Sodium dihydrobis(β-methoxyethoxy)aluminate
CN Sodium dihydrobis(2-methoxyethoxy)aluminate
CN Sodium dihydrobis(2-methoxyethoxy)aluminate(1-)
CN Sodium dihydrobis(2-methoxyethyl)aluminate

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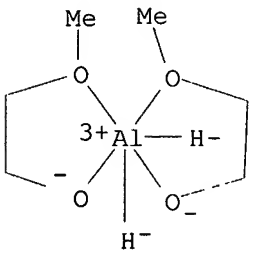
CN Sodium dihydrobis(methoxyethoxy)aluminate
CN Synhydride
CN Vitride
DR 123051-24-1, 60084-96-0, 129270-49-1, 21595-42-6, 21608-56-0, 105644-84-6, 75339-25-2, 144168-86-5, 34542-18-2
MF C6 H16 Al O4 . Na
CI CCS, COM
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Journal; Patent; Preprint
RL.P Roles from patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: PREP (Preparation); PRP (Properties)
CRN (77130-34-8)



● Na^+

509 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
513 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:393433

REFERENCE 2: 140:339542

REFERENCE 3: 140:321872

REFERENCE 4: 140:321195

REFERENCE 5: 140:253318

REFERENCE 6: 140:235782

REFERENCE 7: 140:145838

REFERENCE 8: 140:128268

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REFERENCE 9: 140:111812

REFERENCE 10: 140:94071

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 94-75-7 REGISTRY
CN Acetic acid, (2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN (2,4-Dichlorophenoxy)acetic acid
CN 2,4-D
CN 2,4-D Acid
CN 2,4-Dichlorophenoxyethanoic acid
CN 2,4-PA
CN Aminopielik 50SL
CN Amoxone
CN B-Selektonon
CN Basalcoat
CN Deherban
CN Desormone
CN Dichlorophenoxyacetic acid
CN Diclordon
CN Dicopur
CN Esterone
CN Fernimine
CN Foredex 75
CN Hedonal
CN Hedonal (herbicide)
CN Ipaner
CN Isadiamineyeom
CN Monosan herbi
CN Mota Maskros
CN Netagrone
CN NSC 190751
CN NSC 2925
CN Pielik
CN SDMA
CN Tiller S
CN Verton 2D
CN Vidon 638
FS 3D CONCORD
DR 15183-39-8
MF C8 H6 Cl2 O3
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological

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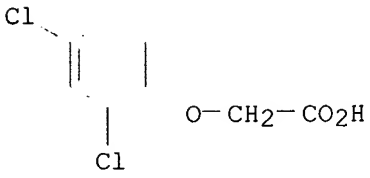
study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

16338 REFERENCES IN FILE CA (1907 TO DATE)
450 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
16360 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 140:428484

REFERENCE 2: 140:428204

REFERENCE 3: 140:419167

REFERENCE 4: 140:413028

REFERENCE 5: 140:412267

REFERENCE 6: 140:405533

REFERENCE 7: 140:405532

REFERENCE 8: 140:403448

REFERENCE 9: 140:403445

REFERENCE 10: 140:401749

=> e biacetyl/cn 5
E1 1 BIACENAPHTHYLIDENE/CN
E2 1 BIACENE/CN
E3 1 --> BIACETYL/CN
E4 1 BIACETYL 2-OXIME 3-P-NITROBENZOYLHYDRAZONE/CN
E5 1 BIACETYL ANION RADICAL/CN

=> s e3;e pyruvic acid/cn 5
L2 1 BIACETYL/CN

E1 1 PYRUVATETRANSFERASE, PHOSPHOENOLPYRUVATE-URIDINE DIPHOSPHOACETYLGLUCOSAMINE (WADDLIA CHONDROPHILA STRAIN ATCC VR-1470 GENE MURA FRAGMENT)/CN

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```
E2            1      PYRUVIC ACETYLTRANSFERASE/CN
E3            1 --> PYRUVIC ACID/CN
E4            1      PYRUVIC ACID (2,4-DINITROPHENYL)HYDRAZONE METHYL ESTER/CN
E5            1      PYRUVIC ACID 1,3-DITHIOLAN-2-YLIDENEHYDRAZIDE/CN

=> s e3;e glyoxal/cn 5
L3            1 "PYRUVIC ACID"/CN


E1            1      GLYOTOL/CN
E2            1      GLYOTOXIN/CN
E3            1 --> GLYOXAL/CN
E4            1      GLYOXAL 1,1-DIMETHYL ACETAL/CN
E5            1      GLYOXAL 2-PHOSPHAZINE/CN

=> s e3;e methylgloxal/cn 5
L4            1 GLYOXAL/CN


E1            1      METHYLGERMYLENE(1+)/CN
E2            1      METHYLGERMYLIUM/CN
E3            0 --> METHYLGLOXAL/CN
E4            1      METHYLGLUCAMIN/CN
E5            1      METHYLGLUCAMINE/CN

=> e methylglyoxal/cn 5
E1            1      METHYLGLYCINE DIACETIC ACID SODIUM SALT/CN
E2            1      METHYLGLYCOL CHITOSAN/CN
E3            1 --> METHYLGLYOXAL/CN
E4            1      METHYLGLYOXAL Ω-PHENYLHYDRAZONE/CN
E5            1      METHYLGLYOXAL 1-OXIME 2-PHENYLHYDRAZONE/CN

=> s e3;e deoxyosone?/cn 5
L5            1 METHYLGLYOXAL/CN


E1            1      DEOXYOOSPONOL/CN
E2            1      DEOXYOSCINE/CN
E3            0 --> DEOXYOSONE?/CN
E4            1      DEOXYOXOCAPURONINE/CN
E5            1      DEOXYOXOPETASITENECIC ACID DIMETHYL ESTER/CN

=> s ?deoxyosones?/cns
L6            0 ?DEOXYOSONES?/CNS

=> e malondialdehyde/cn 5
E1            1      MALONATODIAMMINEPLATINUM(II)/CN
E2            1      MALONATOETHYLENEDIAMINEPLATINUM(II)/CN
E3            1 --> MALONDIALDEHYDE/CN
E4            1      MALONDIALDEHYDE CIS-ENOL/CN
E5            1      MALONDIALDEHYDE DI(PENTADEUTEROANIL)/CN

=> s e3;e "2-oxopropanal"/cn 5
L7            1 MALONDIALDEHYDE/CN


E1            1      2-OXOPOWELLAN/CN
E2            1      2-OXOPOWELLAN PERCHLORATE/CN
E3            1 --> 2-OXOPROPANAL/CN
E4            1      2-OXOPROPANAL 1-(6-CHLORO-2-BENZOTHIAZOLYL)HYDRAZONE/CN
E5            1      2-OXOPROPANAL 1-HYDRAZONE 2-OXIME/CN


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=> s e3;e phenylglyoxal/cn 5
L8            1 2-OXOPROPANAL/CN


E1            1      PHENYLGLYCYL-B-LACTAMIDE AMIDASE/CN
E2            1      PHENYLGLYCYLAMPICILLIN/CN
E3            1 --> PHENYLGLYOXAL/CN
E4            1      PHENYLGLYOXAL 1-(DIMETHYL ACETAL)/CN
E5            1      PHENYLGLYOXAL 2-OXIME/CN

=> s e3;e "2,3-butanedione"/cn 5
L9            1 PHENYLGLYOXAL/CN


E1            1      2,3-BUTANEDIOL-SULFUR MONOCHLORIDE COPOLYMER/CN
E2            1      2,3-BUTANEDIOL-TEREPHTHALIC ACID COPOLYMER/CN
E3            1 --> 2,3-BUTANEDIONE/CN
E4            1      2,3-BUTANEDIONE 2-HYDRAZONE 3-OXIME/CN
E5            1      2,3-BUTANEDIONE 2-OXIME/CN

=> s e3;e "1,2-cyclohexanedione"/cn 5
L10           1 "2,3-BUTANEDIONE"/CN


E1            1      1,2-CYCLOHEXANEDIOLMONO(DIMETHYLCARBAMATE)/CN
E2            1      1,2-CYCLOHEXANEDIOLMONO(PROPYLCARBAMATE)/CN
E3            1 --> 1,2-CYCLOHEXANEDIONE/CN
E4            1      1,2-CYCLOHEXANEDIONE BIS(2-HYDROXYBENZOYLHYDRAZONE)/CN
E5            1      1,2-CYCLOHEXANEDIONE DIGUANYL/CN

=> s e3
L11           1 "1,2-CYCLOHEXANEDIONE"/CN

=> e guanidino nitrogen
E1            1      GUANIDINIUMYL/BI
E2         2013      GUANIDINO/BI
E3            0 --> GUANIDINO NITROGEN/BI
E4            2      GUANIDINO,1,2,3,4,5/BI
E5            1      GUANIDINO,GUANIDINO,GUANIDINO,GUANIDINO,N2,1/BI
E6            1      GUANIDINO,GUANIDINO,GUANIDINO,GUANIDINO,N2,1,2,3,3,4,4,5,5/B
                     I
E7            6      GUANIDINO,GUANIDINO,GUANIDINO,GUANIDINO,N2,2,3,3,4,4,5,5/BI
E8            1      GUANIDINO,GUANIDINO,GUANIDINO,GUANIDINO,N2,N2/BI
E9            1      GUANIDINO,GUANIDINO,GUANIDINO,N2/BI
E10           1      GUANIDINO,GUANIDINO,N2/BI
E11          72      GUANIDINOACET/BI
E12          44      GUANIDINOACETAMIDO/BI

=> s guanidino(l)nitrogen
          2013 GUANIDINO
         12936 NITROGEN
L12          0 GUANIDINO(L)NITROGEN

=> s guanidino(l)(sdma or arginine)
          2013 GUANIDINO
             3 SDMA
         69880 ARGININE
             1 ARGININES
         69880 ARGININE
                 (ARGININE OR ARGININES)
L13         12 GUANIDINO(L)(SDMA OR ARGININE)


Searched by: Mary Hale 571-272-2507 REM 1D86
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=> fil medl,hcapl,embase,biosis,jicst,wpids;s (l13 or guanidino(l)(sdma or
arginine))
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      81.89      82.10

FILE 'MEDLINE' ENTERED AT 14:25:07 ON 24 JUN 2004

FILE 'HCAPLUS' ENTERED AT 14:25:07 ON 24 JUN 2004
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FILE 'BIOSIS' ENTERED AT 14:25:07 ON 24 JUN 2004
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FILE 'JICST-EPLUS' ENTERED AT 14:25:07 ON 24 JUN 2004
COPYRIGHT (C) 2004 Japan Science and Technology Agency (JST)

FILE 'WPIDS' ENTERED AT 14:25:07 ON 24 JUN 2004
COPYRIGHT (C) 2004 THOMSON DERWENT


L14          447 FILE MEDLINE
L15         1100 FILE HCAPLUS
L16          403 FILE EMBASE
L17          631 FILE BIOSIS
L18           37 FILE JICST-EPLUS
L19          112 FILE WPIDS

TOTAL FOR ALL FILES
L20         2730 (L13 OR GUANIDINO(L)(SDMA OR ARGININE))

=> s (l13 or guanidino(l)(l1)
UNMATCHED LEFT PARENTHESIS '(L13'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s (l13 or guanidino(l)l1)
L21            0 FILE MEDLINE
L22           21 FILE HCAPLUS
L23            0 FILE EMBASE
L24            0 FILE BIOSIS
L25            0 FILE JICST-EPLUS
L26          112 FILE WPIDS

TOTAL FOR ALL FILES
L27          133 (L13 OR GUANIDINO(L) L1)

=> s l20 or l27
L28          447 FILE MEDLINE
L29         1100 FILE HCAPLUS
L30          403 FILE EMBASE
L31          631 FILE BIOSIS
L32           37 FILE JICST-EPLUS
L33          112 FILE WPIDS

TOTAL FOR ALL FILES
L34         2730 L20 OR L27


Searched by: Mary Hale 571-272-2507 REM 1D86
```

=> s l34 and (l2 or l3 or l4 or l5 or l7 or l8 or l9 or l10 or l11 or dialdehyde? or ketoaldehyde? or diketone? or dicarbonyl? or biacetyl or pyruvic acid or glyoxal or methylglyoxal or deoxyosone? or malondialdehyde or oxopropanal or phenylglyoxal or butanedione or cyclohexanedione)
L35 23 FILE MEDLINE
L36 74 FILE HCAPLUS
L37 15 FILE EMBASE
L38 32 FILE BIOSIS
L39 1 FILE JICST-EPLUS
L40 5 FILE WPIDS

TOTAL FOR ALL FILES
L41 150 L34 AND (L2 OR L3 OR L4 OR L5 OR L7 OR L8 OR L9 OR L10 OR L11 OR DIALDEHYDE? OR KETOALDEHYDE? OR DIKETONE? OR DICARBONYL? OR BIACETYL OR PYRUVIC ACID OR GLYOXAL OR METHYLGLYOXAL OR DEOXYOSONE? OR MALONDIALDEHYDE OR OXOPROPANAL OR PHENYLGLYOXAL OR BUTANEDIONE OR CYCLOHEXANEDIONE)

=> s (l1 or sdma) and arginine
L42 73 FILE MEDLINE
L43 182 FILE HCAPLUS
L44 56 FILE EMBASE
L45 99 FILE BIOSIS
L46 1 FILE JICST-EPLUS
L47 3 FILE WPIDS

TOTAL FOR ALL FILES
L48 414 (L1 OR SDMA) AND ARGININE

=> s l48 and l41
L49 0 FILE MEDLINE
L50 2 FILE HCAPLUS
L51 0 FILE EMBASE
L52 0 FILE BIOSIS
L53 0 FILE JICST-EPLUS
L54 0 FILE WPIDS

TOTAL FOR ALL FILES
L55 2 L48 AND L41

=> d 1-2 cbib abs

L55 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:453336 Methods for detecting asymmetric dimethylarginine in a biological sample. Lin, Ken Young; Cooke, John (The Board of Trustees of the Leland Stanford Junior University, USA). PCT Int. Appl. WO 2004046314 A2 20040603, 28 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US36133 20031113. PRIORITY: US 2002-PV426677 20021115.

AB The present invention provides methods of detecting asym. dimethylarginine (ADMA) in a sample, particularly a sample that may contain sym. dimethylarginine (**SDMA**) and/or **arginine**. The methods generally involve modifying any **SDMA** and **arginine** in the sample such that **SDMA** and **arginine** are readily

Searched by: Mary Hale 571-272-2507 REM 1D86

distinguishable from ADMA; and detecting ADMA. The invention further provides antibodies specific for ADMA; antibodies specific for modified **SDMA**; and antibodies specific for modified **arginine**. The invention further provides kits for practicing the subject methods. Any **SDMA** and **arginine** in the sample is derivatized with an α- **dicarbonyl** compound, e.g. **phenylglyoxal**, and the ADMA is detected by immunoassay, high performance liquid chromatog. or capillary electrophoresis.

L55 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
1991:117335 Document No. 114:117335 Dimethylarginine:pyruvate aminotransferase in rats. Purification, properties and identity with alanine:glyoxylate aminotransferase 2. Ogawa, Tadashi; Kimoto, Masumi; Sasaoka, Kei (Sch. Med., Univ. Tokushima, Tokushima, 770, Japan). Journal of Biological Chemistry, 265(34), 20938-45 (English) 1990. CODEN: JBCHA3. ISSN: 0021-9258.

AB Dimethylarginine:pyruvate aminotransferase, which plays a role in the metabolism of dimethylarginines, has been purified to homogeneity from rat kidney. The enzyme has a mol. weight of approx. 200,000 and an isoelec. point at about pH 6.3. The enzyme consists of four similar subunits having a mol. weight of about 50,000. The enzyme catalyzes the effective transaminations of **guanidino**-N methylated L-**arginines** (e.g. NG,NG-dimethyl-L-**arginine**, NG,N'G-dimethyl-L-**arginine** and NG-monomethyl-L-**arginine**) and the α-amino group of L-ornithine to pyruvate or glyoxylate. The enzyme was always accompanied by the known alanine:glyoxylate aminotransferase activity with the ratios of their specific activities remaining constant during the purification steps. The physicochem. and immunol. properties of the purified enzyme were shown to be identical with those of the isoenzyme of alanine:glyoxylate aminotransferase (EC 2.6.1.44), designated as alanine:glyoxylate aminotransferase 2. The distribution profiles in tissues and the neg. response to glucagon treatment further supported the identity of the two enzymes. The present data show that alanine:glyoxylate aminotransferase 2 functions in dimethylarginine metabolism in vivo in rats.

=> fil casrea

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	24.66	106.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.39	-1.39

FILE 'CASREACT' ENTERED AT 14:30:38 ON 24 JUN 2004

FILE CONTENT:1840 - 20 Jun 2004 VOL 140 ISS 25

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*
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****

Searched by: Mary Hale 571-272-2507 REM 1D86

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

Structure search limits have been raised. See HELP SLIMIT for the new, higher limits.

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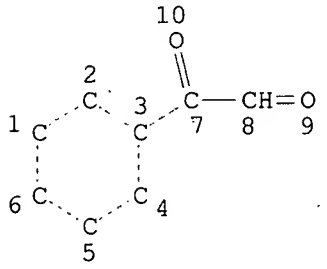
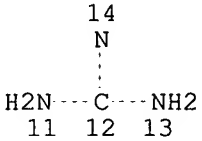
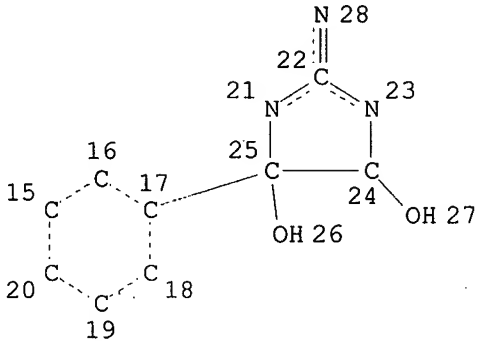
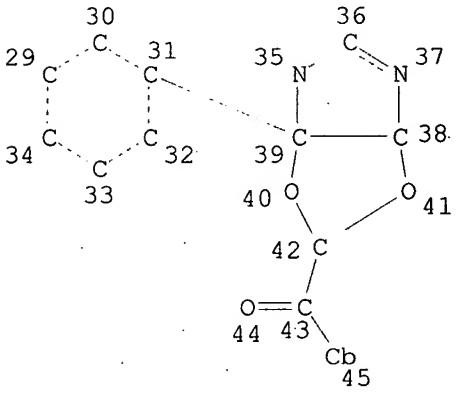
L56 STR









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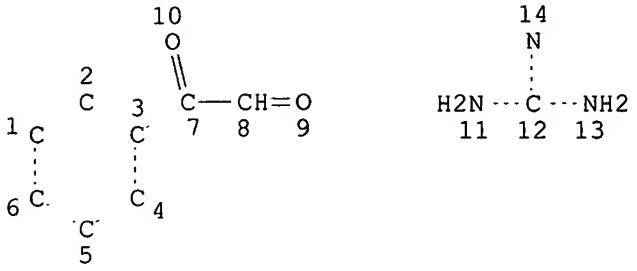
NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE
L58 0 SEA FILE=CASREACT SSS FUL L56 (0 REACTIONS)

100.0% DONE 0 VERIFIED 0 HIT RXNS 0 DOCS
SEARCH TIME: 00.00.01

Searched by: Mary Hale 571-272-2507 REM 1D86

=> => d l61 que stat;d 1-6 fhit cbib abs
L59 STR



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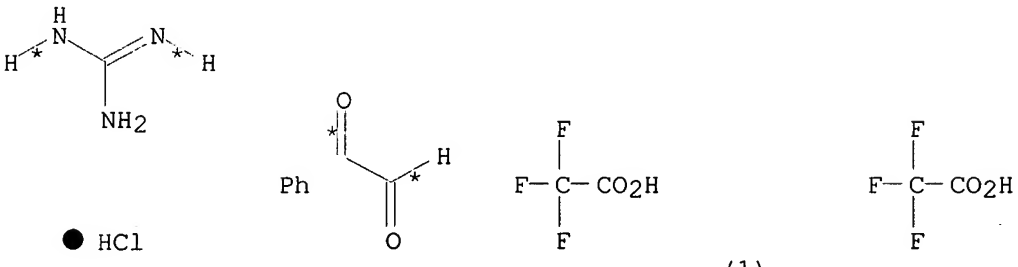
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L61 6 SEA FILE=CASREACT SSS FUL L59 (26 REACTIONS)

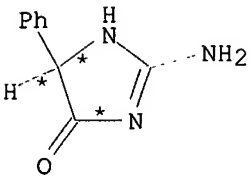
100.0% DONE 141 VERIFIED 26 HIT RXNS 6 DOCS
SEARCH TIME: 00.00.01

L61 ANSWER 1 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

RX(1) OF 1 **A** + **B** + C ===> D



A B C D: CM 1



D: CM 2

Searched by: Mary Hale 571-272-2507 REM 1D86

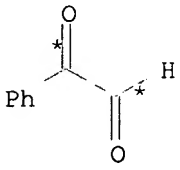
RX(1) RCT A **50-01-1**, B **1074-12-0**, C 76-05-1
PRO D 619330-79-9
SOL 71-43-2 Benzene

139:350671 Synthesis of 2-imino-5-phenylimidazolidin-4-one and the structure of its trifluoroacetate salt. Atwood, Jerry L.; Barbour, Leonard J.; Heaven, Michael W.; Raston, Colin L. (Department of Chemistry, University of Missouri -Columbia, Columbia, MO, 65211, USA). Journal of Chemical Crystallography, 33(3), 175-179 (English) 2003. CODEN: JCCYEV. ISSN: 1074-1542. Publisher: Kluwer Academic/Plenum Publishers.

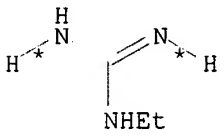
AB Title compound has been prepared and characterized by crystallog. The complex crystallizes in the monoclinic space group C2, with a = 27.894(3) Å, b = 6.2616(7) Å, c = 7.1989(8) Å, β = 93.176(2)° . The extended structure consists of neutral, one-dimensional, hydrogen-bonded ribbons incorporating both ionic species.

L61 ANSWER 2 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

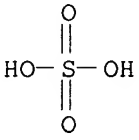
RX(2) OF 5 **E** + **F** ===> G



E

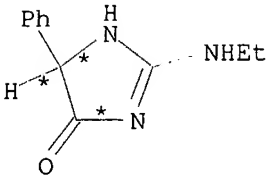


F: CM 1



F: CM 2

(2)



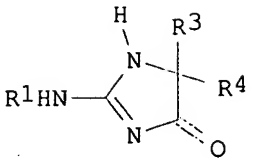
G

RX(2) RCT E **1074-12-0**, F **50693-82-8**
PRO G 199996-73-1
SOL 7732-18-5 Water, 67-56-1 MeOH
NTE phosphate buffer, incubated 4 days

128:48224 Preparation of 2-amino-4-oxo-5H-imidazoles as cytokine production inhibitors. Thornalley, Paul (Wivenhoe Technology Limited, UK; Thornalley, Paul). PCT Int. Appl. WO 9745417 A1 19971204, 39 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-GB1415 19970523. PRIORITY: GB 1996-11046 19960525.

GI

Searched by: Mary Hale 571-272-2507 REM 1D86

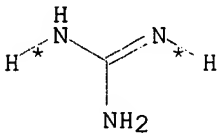


I

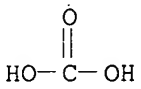
AB Title compds. [I; R1 = (un)substituted alkyl or -aryl; R3,R4 = H, alkyl, aryl], ligands which inhibit the binding of α-oxoaldehyde-modified arginine residues, were prepared Thus, MeNHC(:NH)NH2 was cyclocondensed with benzil to give I (R1 = Me, R3 = R4 = Ph). Data for biol. activity of I were given in graphic form.

L61 ANSWER 3 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

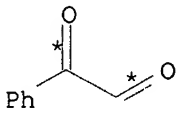
RX(4) OF 23 **A** + **L** + C ===> M



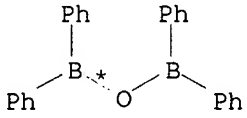
A: CM 1



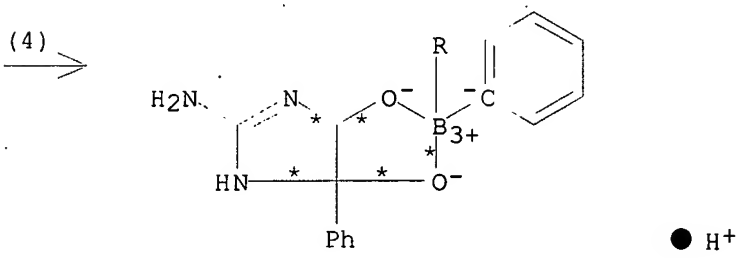
A: CM 2

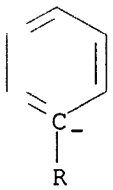


L



C





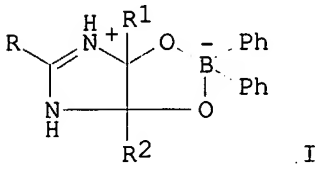
M
YIELD 44%

RX(4) RCT A **100224-74-6**, L **1074-12-0**, C 4426-21-5
RGT E 1310-73-2 NaOH
PRO M 115438-22-7
SOL 64-17-5 EtOH, 7732-18-5 Water

Searched by: Mary Hale 571-272-2507 REM 1D86

109:231111 Stabilization of adducts of α-dicarbonyl compounds with amidine functions by formation of boron chelates. Kliegel, Wolfgang; Motzkus, Hans Walter (Inst. Pharm. Chem., Tech. Univ. Braunschweig, Braunschweig, D-3300, Fed. Rep. Ger.). Chemische Berichte, 121(10), 1865-7 (German) 1988. CODEN: CHBEAM. ISSN: 0009-2940.

GI

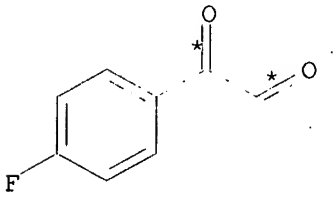


I

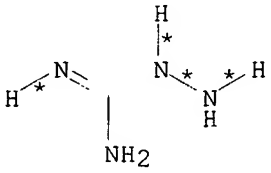
AB The adducts of various α-dicarbonyl compds. with guanidine, O-Me isourea, acetamidine, or benzamidine are trapped by formation of diphenylboron chelates. The 23 crystalline chelates I (R = NH2, Me, OMe, Ph; R1, R2 = H, Me, Ph) resulting from the three component reaction of an amidine derivative, an α-dicarbonyl compound, and (Ph2B)2O confirm the bicyclic structure, which has been suggested to represent the constitution of the final product in the reversible modification of arginine-containing enzyme proteins by 1,2-diketones in borate buffer.

L61 ANSWER 4 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

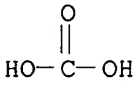
RX(1) OF 38 **A** + **B** ===> C...



A

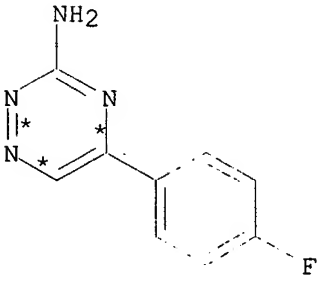


B: CM 1



B: CM 2

(1) ⟶



C

YIELD 70%

RX(1) RCT A **403-32-7**, B **2582-30-1**
PRO C 107128-47-2

Searched by: Mary Hale 571-272-2507 REM 1D86

SOL 64-17-5 EtOH, 7732-18-5 Water

106:119854 Facile synthesis of fluorine containing imidazo[1,2-b][1,2,4]triazines through α-oxo-N-aryl-α-arylethanehydrazonoyl bromides. Joshi, Krishna C.; Pathak, Vijai N.; Sharma, Sharda (Dep. Chem., Univ. Rajasthan, Jaipur, 302004, India). Journal of Fluorine Chemistry, 32(3), 299-307 (English) 1986. CODEN: JFLCAR. ISSN: 0022-1139.

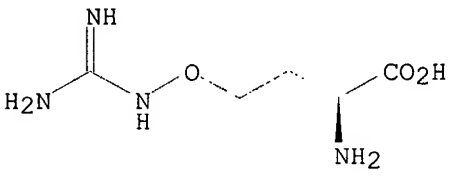
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

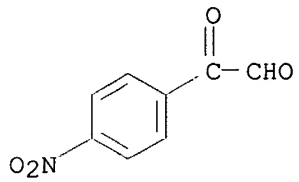
AB Treatment of F containing arylglyoxals I (R=H, Cl, Me) with H2NNHC(NH2):NH2.H2CO3 in aqueous EtOH formed fluorinated 3-amino-5-aryltriazines II which was treated with α-oxo-N-aryl-α-arylethanehydrazonoyl bromides III (R1=H, F, R2=R, F) to afford 3,6-diaryl-7-arylazoimidazo[1,2-b][1,2,4]triazines IV in 75-80% yield. Mass fragmentation patterns of these compds. have also been discussed.

L61 ANSWER 5 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

RX(1) OF 1 **A** + **B** ===> C

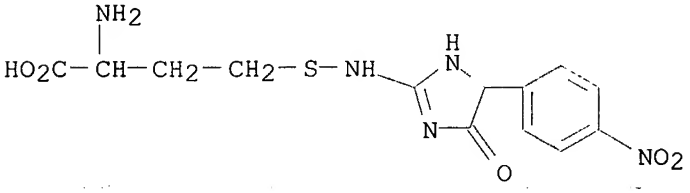


A



B

(1)



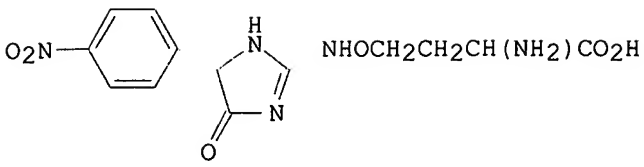
C

RX(1) RCT A **543-38-4**, B **4974-57-6**
PRO C 98619-43-3
NTE buffered soln.

103:160812 Chemical modification of canavanine with p-nitrophenylglyoxal. Factors influencing the chemistry and reactivity of α-dicarbonyl-guanidino reactions. Soman, Gopalan; Hurst, Michael O.; Graves, Donald J. (Dep. Biochem. Biophys., Iowa State Univ., Ames, IA, 50011, USA). International Journal of Peptide & Protein Research, 25(5), 517-25 (English) 1985. CODEN: IJPPC3. ISSN: 0367-8377.

GI

Searched by: Mary Hale 571-272-2507 REM 1D86

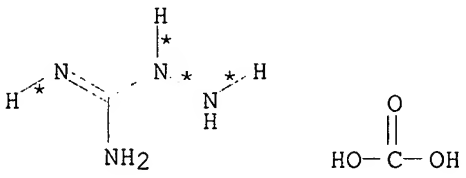


I

AB The role of structural features and deprotonation of guanidino derivs. on chemical reactions with p-nitrophenylglyoxal were studied. Canavanine, an arginine analog, reacted to form a yellow product, which absorbs maximally at 350 nm (ε = 6500) and at 278 nm (ε = 14500). Elemental and spectral analyses suggest that the product has the imidazole structure I. Kinetic studies showed that the second order rate constant for the reaction increases with increasing pH in the range of pH 7-11.0. The pH dependence can be explained by general base catalysis and not simply by a deprotonation of the guanidinoxy side chain. The reaction of arginine, polyarginine, and other derivs. differed markedly from that of canavanine. Change in the tautomeric equilibrium between the imino and amino forms of the guanidino group may partly account for differences in reaction of canavanine and arginine and the reactions of specific arginyl residues in proteins.

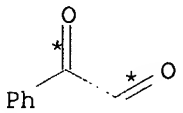
L61 ANSWER 6 OF 6 CASREACT COPYRIGHT 2004 ACS on STN

RX(1) OF 12 **A** + **B** ===> C



A: CM 1

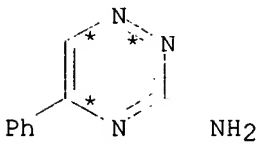
A: CM 2



● H_2O

B

(1) →



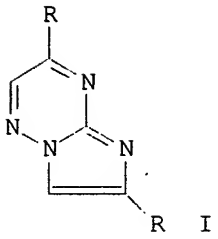
C
YIELD 30%

RX(1) RCT A **2582-30-1**, B **78146-52-8**
PRO C 942-60-9

87:203044 A one-step synthesis of 3,6-bis-substituted imidazo[1,2-b]-as-triazines, a set of highly fluorescent heterocycles. Saraswathi, T. V.; Srinivasan, V. R. (Dep. Chem., Osmania Univ., Hyderabad, India). Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry, 15B(7), 607-10 (English) 1977. CODEN: IJSBDB. ISSN: 0376-4699.

GI

Searched by: Mary Hale 571-272-2507 REM 1D86



AB Fluorescent imidazo[1,2-b]-as-triazines (I, R = Ph or substituted Ph, 2-furyl, 2-thienyl) are prepared by refluxing 0.01 mol RCOCH2Br with 0.005 mol aminoguanidine bicarbonate [2582-30-1] in DMF for 1 h. The structure of I are confirmed by spectral data and the 3,6-bis substitution of one representative sample was confirmed using an unambiguous synthesis. The use of Euresolve results in a considerable resolution and simplification of the NMR spectra of I and sep. absorptions due to marked shifts were observed

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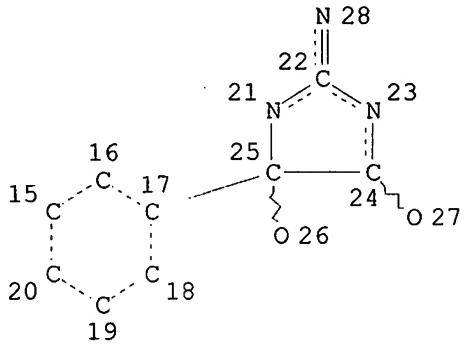
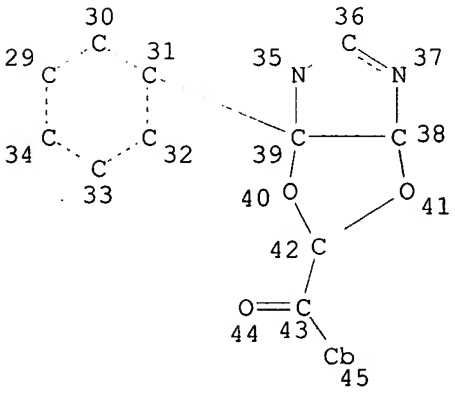
L62 STR





NODE ATTRIBUTES:
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 31

Searched by: Mary Hale 571-272-2507 REM 1D86

STEREO ATTRIBUTES: NONE
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100.0% DONE 0 VERIFIED 0 HIT RXNS 0 DOCS
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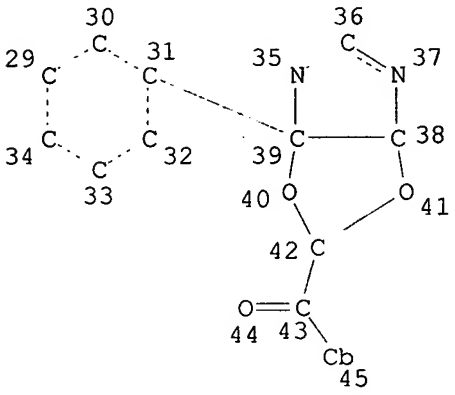

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NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE
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100.0% DONE 25 VERIFIED 0 HIT RXNS 0 DOCS
SEARCH TIME: 00.00.01

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	443.40	550.16

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.96	-5.35

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9
DICTIONARY FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9

Searched by: Mary Hale 571-272-2507 REM 1D86

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> => log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	705.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.35

STN INTERNATIONAL LOGOFF AT 14:41:59 ON 24 JUN 2004

Searched by: Mary Hale 571-272-2507 REM 1D86